

What Is Needed

The ultimate goal of any asset management process is to provide the basis for decision-making efforts and program development. The process in use must reflect an outcome-based development philosophy.

An outcome-based approach sets expectations for the system through identification of deficiencies, based on comparison of existing conditions and service levels to desired condition and service levels. The desired levels are based on goals and objectives from the organization's strategic plan and customer expectations. To alleviate deficiencies, strategies and actions need to be identified to address both design and performance standards. The decision to program a project must be in accordance with the overall mission of the organization, state commission policy, adopted goals and objectives of the *State Long-Range Plan* and, where applicable, urban area long-range plans.

Programming Decision Support Tools

The Michigan Department of Transportation (MDOT) uses a variety of tools to aid in decision-making and program development. They include:

- **Michigan Architecture Project:** The relational database designed to coordinate the *Call for Projects*, *Project Programming*, *Expenditure File* and *Construction Estimates* applications data.
- **Develop Transportation Programs:** The process outlined to implement project authorizations consistent with MDOT's business plan and investment strategies. The process identifies system deficiencies, establishes funding levels, selects projects, changes the program and obligates funds. This tool



The Five-Year Road & Bridge Program identifies MDOT investment strategies and a list of road and bridge projects to be undertaken over a rolling five-year period; including any work on the US-41 crossing of Portage Lake between Houghton and Hancock.

identifies ways of reducing programming process cycle times, while allowing decentralization of project programming authority and activities.

- **Program/Project Management System:** This provides the sophisticated project scheduling tools necessary for the pre-construction planning process.

Five-Year Road & Bridge Program

The *Five-Year Road & Bridge Program* identifies MDOT's current investment strategies and a specific list of road and bridge projects to be undertaken over a rolling five-year period. All projects in the plan are prioritized with a specific focus on fixing the worst roads and bridges first. It includes a combination of long-term fixes (reconstruction), intermediate-term fixes (resurfacing), an aggressive capital preventive maintenance program and increased routine maintenance of the system.

The program is based on thoughtful investment strategies, sound asset management principles and extensive customer feedback. The primary focus is on preserving our existing system and regular, consistent management of it. New technology made it possible to combine long-term program goals with current condition data to generate a five-year roster of projects. It also al-

lowed MDOT to integrate the data to coordinate road and bridge improvements and achieve new investment efficiencies.

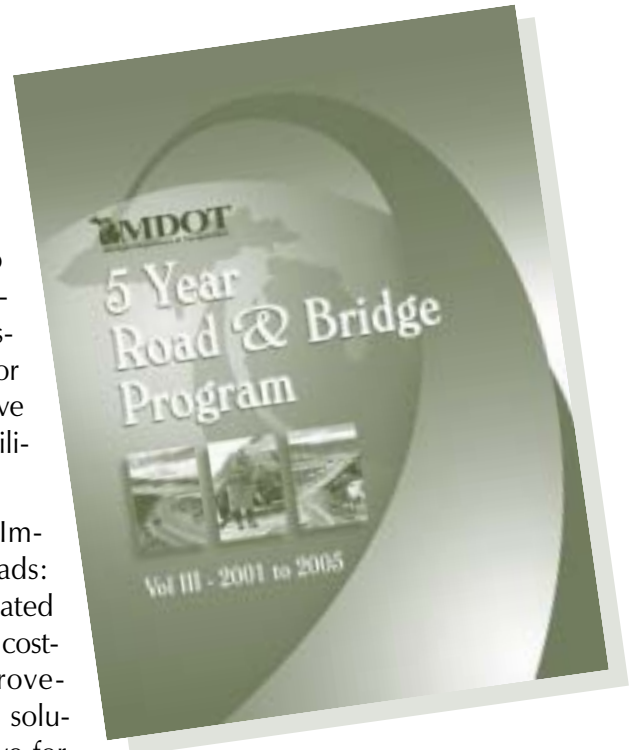
The combination of highway and bridge projects included in the 1999 program represent a coordinated effort to have 95 percent of state freeways and bridges, and 85 percent of state non-freeways and bridges in "good" condition by 2007.

Strategies for Achieving these Goals

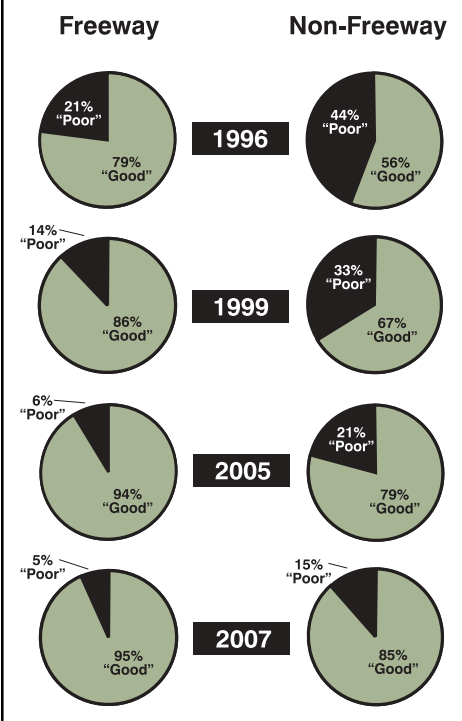
With the Michigan State Transportation Commission, MDOT addressed increased public accountability and greater customer demands for better roads and bridges. Strategies for achieving these goals are:

- **Repairing & Rebuilding Roads:** MDOT's primary goal for road repair and rebuilding is to increase the amount of pavement in "good" condition. Because it is more cost-effective to correct minor deficiencies early in a pavement's life, rather than wait until a road has major problems in need of costly rehabilitation or reconstruction, we will extend the life of some pavements through an aggressive capital preventive maintenance program.
- **Capacity Improvements:** MDOT's program for capacity improvements focuses on relieving urban congestion and improving service along state highways that are most important to Michigan's economy.

- **New Roads:** This category of projects includes construction of new roads on new alignments to expand the highway system in areas where it is essential to continue Michigan's economic vitality, where system continuity is an issue or where the need to relieve congestion on existing facilities warrants expansion.
- **Research for Capacity Improvements & New Roads:** Research funding is dedicated to ensure the most viable, cost-effective capacity improvements and/or expansion solutions are selected to move forward to the project prioritization/selection process. This process brings the project to a stage where MDOT staff will formally decide whether to move a project forward to design and, eventually, construction.
- **Corridor & Freeway Studies:** MDOT conducts corridor studies to determine capacity deficiencies on existing highways. The studies develop potential alternatives and coordinate capacity improvements with pavement and structure rehabilitation.



Pavement Conditions



For Further Information -

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